

STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION – CENTRAL VALLEY WATER BOARD
Comment Summary and Responses
Comment Deadline: October 30, 2017

**AMENDMENT TO THE WATER QUALITY CONTROL PLAN
FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS
TO ADD ELECTRICAL CONDUCTIVITY WATER QUALITY OBJECTIVES
IN THE SAN JOAQUIN RIVER BETWEEN THE MOUTH OF THE MERCED RIVER
AND THE AIRPORT WAY BRIDGE NEAR VERNALIS**

On June 9, 2017, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopted Resolution R5-2017-0062, amending the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) to establish salinity water quality objectives for the Lower San Joaquin River from the mouth of the Merced River to the Airport Way Bridge near Vernalis.

The State Water Resources Control Board (State Water Board) provided interested persons the opportunity to submit written comments on the proposed approval of the Basin Plan Amendment. This document contains responses to written comments submitted to State Water Board staff during the September 28-October 30, 2017 comment period.

Written comments were received by:

Comment Reference	Organization	Representative
1	California Sportfishing Protection Alliance; California Water Impact Network; AquAlliance	Bill Jennings, Richard McHenry; Carolee Kreiger, Barbara Vlamis
2	Contra Costa Water District	Leah Orloff
3	Duane Morris, on behalf of Merced Irrigation District	Jolie-Anne S. Ansley
4	General Public	Joseph Rizzi
5	Stockton East Water District	Karna E. Harrigfeld (Herum Crabtree Suntag)
6	United States Department of the Interior, Bureau of Reclamation	David van Rijn
7	San Joaquin Tributaries Authority	Patrick D. Lewis (O'Laughlin & Paris LLP)

1. CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CALSPA); CALIFORNIA WATER IMPACT NETWORK (CWIN); AQUALLIANCE

Comment letter was received by the State Water Board on October 30, 2017.

CALSPA et al. Comment No. 1: "Given the press of other public proceedings (including California WaterFix), the Proposed Amendment's inadequate, cosmetic and self-serving modifications of the Draft Amendment and the seriously deficient and disingenuous response to our previous comments on the Draft Amendment, we respectfully resubmit our 14 April 2017

comment letter on the Proposed Amendment (attached to these comments). Those comments remain pertinent and applicable to the Proposed Amendment."

RESPONSE: The commenters provided comments to the Central Valley Water Board on April 14, 2017 (April Comment Letter). The Central Valley Water Board responded to these comments. The April Comment Letter was appended to the commenters' October 30, 2017 letter to the State Water Board, but the commenters did not offer any explanation why the Central Valley Water Board's prior responses were inadequate. Nevertheless, in the interest of providing clarity, the Central Valley Water Board's responses to the issues raised in the April Comment Letter are reproduced or summarized below with the notation "**CALSPA APRIL COMMENT LETTER Comment No. #**".

CALSPA et al. Comment No. 2: "Contrary to the Proposed Amendment's claims, aquatic life beneficial uses are the most sensitive beneficial uses in the subject reach of the San Joaquin River, and proposed salinity limits are clearly not protective of aquatic life. In fact, the Proposed Amendment is not even protective of agriculture."

RESPONSE: The Central Valley Water Board reexamined the Staff Report after receiving the April Comment Letter, and revised the Staff Report to provide more detailed information on historical salinity water quality, biological resources in the lower San Joaquin River (LSJR), beneficial uses (warm-water spawning), and clarified the environmental baseline that the Central Valley Water Board used to inform the CEQA analysis. Additional references on potential salinity impacts to striped bass, white and green sturgeon, and American shad were also added to the Staff Report.¹ The updated Staff Report continues to support the conclusion that the water quality objectives established by the Proposed Amendment are protective of the designated beneficial uses in the LSJR.

The biological resources discussion in the Staff Report recognizes the historic significance of the LSJR and its tributaries for supporting migration and spawning of key fish species such as salmon, sturgeon, striped bass and American shad, and the documented decline in the fisheries after development and completion of water management projects in the 1940's, 1950's and 1960's.

Available literature indicates that striped bass are the most sensitive to salinity (relative to white and green sturgeon and salmon) and that highest sensitivity occurs during spawning periods. The Staff Report notes that while migration of all species continues, striped bass only migrate into the LSJR during the wettest years, and that the run of striped bass was small even under ideal conditions. The expanded discussion in the Staff Report notes the dependence of successful striped bass spawning on three factors: temperature, flow and salinity. The expanded discussion also includes references to the noted "salinity barrier" existing between Prisoners Point within the South Delta and Vernalis (the downstream most point in the project area) and the historic limitation on successful migration and spawning in all but the wettest years.

¹ No additional resources on salinity impacts to salmon migration were available. Impacts to salmon migrations were documented to be primarily linked to flow and temperature, which are outside of the scope of this project.

With respect to sturgeon and shad, which were noted to be more salt tolerant, the Staff Report notes that while white sturgeon have been found to migrate and spawn in the LSJR, green sturgeon have not been identified in the LSJR above Vernalis. Studies tracking migration patterns have identified the green sturgeon, and in particular their spawning habitat, as being contained within the Delta and Sacramento River Basin. All available evidence indicates that neither of these species will be negatively impacted by the Proposed Amendment, which is anticipated to result in lower salinity discharges to the LSJR. Furthermore, aquatic life beneficial use designations will not be affected by the Proposed Amendment. Should new evidence come to light that indicates that salinity concentrations in the LSJR are affecting aquatic life beneficial uses, the Basin Plan may be re-opened following a reevaluation of water quality and biological data pertaining to conditions in the LSJR.

Lastly, the Staff Report and supporting documentation includes a detailed analysis of current cropping patterns and crop salinity tolerances that supports the conclusion that the water quality objectives established by the Proposed Amendment will protect the AGR beneficial use in the LSJR.

CALSPA et al. Comment No. 3: “The absence of formal comments by the U.S. Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Wildlife is appalling. The participation attendance sheets of the proceeding refute the spurious suggestion that anyone from the fishery agencies actively participated in development of the water quality objectives.”

RESPONSE: Staff from California Department of Fish and Wildlife (CDFW) have participated in stakeholder meetings and reviewed the Proposed Amendment. The Water Quality Coordinator for the Mid-Pacific Region of US Bureau of Reclamation was also an active committee participant and provided linkage to both requirements for New Melones releases and activities being conducted as part of the San Joaquin River Restoration Program, which is tasked with restoring the native salmon in the river. The draft Staff Report was also provided to U.S. Fish and Wildlife and National Oceanic and Atmospheric Administration (NOAA) representatives for their review. The absence of formal comments should not be understood to mean that fishery agencies have not participated in the development of the Proposed Amendment.

CALSPA et al. Comment No. 4: “The Proposed Amendment creates a permanent sacrifice zone of aquatic life in the lower San Joaquin River in order to justify the continued discharge of prodigious quantities of salts from eastside dischargers. The salinity limits reflect what is acceptable to dischargers, not what is protective of the resource. As such, they are legally indefensible, scientifically unjustifiable and morally reprehensible.”

RESPONSE: As stated above, the Proposed Amendment does not affect the existing aquatic life beneficial use designations in the LSJR, and all evidence available to the Central Valley Water Board indicates that the water quality objectives established by the Proposed Amendment will protect these aquatic life beneficial uses. Further, the Proposed Amendment will establish a performance goal that will bolster the Central Valley Water Board’s authority to require the implementation of currently-proposed projects to reduce salinity discharges to the LSJR.

Staff also recognize that water and resource management within the Basin are under review. Any change to water management within the LSJR, including the State Water

Board's development of flow objectives and the full implementation of the San Joaquin River Restoration Program by participating federal agencies, could impact salinity patterns in the LSJR. However, whether or not these activities are completed falls beyond the scope of the Central Valley Water Board's authority and beyond the scope of the Proposed Amendment, which is focused on reducing point source and non-point source salinity discharges to the LSJR. Nonetheless, should these activities have a significant effect on salinity concentrations in the LSJR, the Proposed Amendment would require the Central Valley Water Board to reevaluate the water quality objectives, performance goal, and implementation plan in ten years.

CALSPA APRIL COMMENT LETTER Comment No. 1: There has been no significant participation or review by environmental, environmental justice or fishing organizations or by state or federal fishery agencies in the development of the proposed amendment.

RESPONSE: See response to **CALSPA et al. Comment No. 3**, above.

CALSPA APRIL COMMENT LETTER Comment No. 2: Nineteen years after the LSJR was listed as impaired for salts and boron, and thirteen years after the Regional Board adopted a TMDL to address the impairment, the Regional Board's documents show little or no significant progress in the improvement of water quality or the achievement of compliance with water quality objectives.

RESPONSE: The current status of Phase 1 of the Salt and Boron Control Program is that the Vernalis objectives have been continually met since 1995, and salt loads in the river have decreased as a result of the Grassland Bypass Project selenium management actions (which are progressively reducing the amount of agricultural drainage from a 90,000-acre area from reaching the river). Provisions for implementation of the Control Program have been incorporated by reference into the Irrigated Lands Regulatory Program General Orders for both the East and West side Coalitions. At the end of 2014, the Board approved a Real-time Salinity Management Program that is being implemented by agricultural dischargers and participating agencies.

CALSPA APRIL COMMENT LETTER Comment No. 3: The Central Valley Water Board did not address all of the federal Clean Water Act (CWA) mandates to fully protect present and anticipated beneficial uses. The draft Staff Report analysis avoids direct comparison with the CWA and instead relies on Porter-Cologne provisions which call only for the highest water quality that is "reasonable" in light of competing uses and other factors.

RESPONSE: Under § 303 of the Clean Water Act, states have the leading role in establishing water quality standards. (*Chevron U.S.A., Inc. v. Hammond*, 726 F.2d 483 (9th Cir.1984), cert. denied, 471 U.S. 1140.) Under the applicable federal regulations, state beneficial use designations must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes, including navigation. (40 C.F.R. § 131.10.) States must adopt water quality criteria to protect a waterbody's designated uses. The Porter-Cologne Water Quality Control Act, which sets the statutory requirements for the establishment of state water quality standards (including water quality beneficial uses and water quality objectives/criteria), requires that the Central Valley Water Board, "... establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance." (Wat. Code, § 13241.) As stated in the Staff

Report, it is the position of Board staff that the proposed water quality objectives meet these regulatory standards, and are consistent with the federal Clean Water Act.

CALSPA APRIL COMMENT LETTER Comment No. 4: The assessment of fisheries and impacts to aquatic life is woefully inadequate and the proposed standards are indefensible.

RESPONSE: In response to this comment, the Central Valley Water Board added additional clarifying information to the Staff Report. The Central Valley Water Board maintains, as noted in the prior responses, that the proposed water quality objectives are protective of beneficial uses and are defensible.

CALSPA APRIL COMMENT LETTER Comment No. 5: The Aquatic Life Report written by Dr. Buchwalter in 2014 and prepared for the Central Valley Salinity Alternatives for Long-Term Sustainability initiative (CV-SALTS) did not address splittail, threadfin shad, green sturgeon, largemouth bass, and smallmouth bass species.

RESPONSE: Comment noted and additional clarifying information has been added to the Staff Report.

CALSPA APRIL COMMENT LETTER Comment No. 6: Surveys and studies necessary to protect the lower tropic aquatic assemblages in the LSJR were not conducted.

RESPONSE: The proposed Amendment was developed using the best available scientific information. Additional data from existing studies has been added to the Staff Report. New studies that become available from activities within the Basin (e.g. the San Joaquin River Restoration Program) or from statewide efforts to create appropriate biocriteria for highly modified aquatic environments will continue to be evaluated by Board staff. The Proposed Amendment includes a reopener that requires the Board to reassess the water quality objectives, performance goal, and implementation plan ten years after the adoption of the Proposed Amendment.

CALSPA APRIL COMMENT LETTER Comment No. 7: The bulk of the scientific literature identifies necessary salinity levels for sturgeon spawning as 0-0.5 ppt. These salinity levels, translated into EC, are significantly below those proposed in the Basin Plan Amendment.

RESPONSE: The scientific literature is not consistent in its findings for optimal salinity levels for sturgeon spawning. Much of the literature discussing salinity levels for sturgeon spawning simply reference “freshwater” without specific numeric definition (Israel et al. 2008; Klimley et al. 2015). Although McEnroe and Cech (1985) note that “brackish” water cannot be “tolerated”, no specific salinity limits are provided.

CALSPA APRIL COMMENT LETTER Comment No. 8: CALSPA cites USEPA regulations they believe support their contention that the Central Valley Water Board must provide suitable water quality standards fully protective of striped bass migration and spawning in the LSJR.

RESPONSE: The federal regulations cited by CALSPA are “... applicable to waters specified in the Water Quality Control Plan for Salinity for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary.” (40 C.F.R. § 131.37.) Reach 83 falls outside of the area where these federal water quality criteria apply. As has been stated above, the Porter-Cologne Water Quality Control Act requires that the Central Valley Water Board, “... establish such water quality objectives in water quality control plans as

in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance.” (Wat. Code, § 13241.) The Central Valley Water Board found that the proposed objectives meet this standard.

CALSPA APRIL COMMENT LETTER Comment No. 9: Concern with the reverse salinity gradient on anadromous fish migration.

RESPONSE: Central Valley Water Board staff are not aware of any scientific literature on the impacts of a reverse salinity gradient on anadromous fish migration in the LSJR.

CALSPA APRIL COMMENT LETTER Comment No. 10: Disagreement with the draft Staff Report’s recommendation that Reach 83 not be considered COLD-water habitat because it does not support salmonid juvenile development and rearing and migration of smolts or young.

RESPONSE: Comment noted. This recommendation was made by the LSJR Committee and was noted in the beneficial use assessment portion of the draft Staff report. The change was not part of the scope of this project and no modification of the existing beneficial uses will be made by the Proposed Amendments.

CALSPA APRIL COMMENT LETTER Comment No. 11: “If the new compliance point is Crows Landing and the majority of dilution flow to ensure compliance with the Vernalis salinity objective comes primarily from New Melones on the Stanislaus, the majority of Reach 83 will experience significantly higher salinity and temperature and not be protective of aquatic life beneficial uses.”

RESPONSE: The Vernalis salinity water quality objectives, set by the State Water Board, are intended to protect beneficial uses in the south Delta. The Salt and Boron Control Program, adopted by the Central Valley Water Board for the LSJR, contains two phases. Phase 1 of the Control Program, which will remain unchanged, requires that permittees either comply with strict salinity limits or participate in a real-time management program designed to achieve the needed salinity levels at Vernalis. The Proposed Amendment currently under consideration do not replace or otherwise modify Phase 1 requirements, but instead implement Phase 2 of the Salt and Boron Control Program by establishing salinity water quality objectives upstream of Vernalis.

It is also important to note that the draft Staff Report presents modeled forecast of future salinity in the LSJR which predicts that the river salinity will be lower than current and historic river salinity after full implementation of the preferred alternative, which includes full implementation of the Grassland Bypass Project (GBP). The GBP is progressively reducing subsurface return flows to the LSJR from 90,000 acres of irrigated agriculture. Non-stormwater flows to the LSJR from the GBP will cease in 2019. The first compliance point for the proposed objectives is at Crows Landing, upstream of the dilution flows of the Tuolumne and Stanislaus Rivers. Modeling efforts presented in the draft Staff Report show that compliance at Crows Landing will result in incrementally lower salinity concentrations downstream to Vernalis. Following the adoption of the Proposed Amendment, water quality conditions are expected to improve in Reach 83 over historic baseline conditions.

CALSPA APRIL COMMENT LETTER Comment No. 12: The proposed water quality objective for salinity exposes the consequences of handing over development of regulatory objectives to industry groups.

RESPONSE: The proposed salinity objectives were based on recommendations from the Lower San Joaquin River Committee, which has a diverse membership that includes representatives of agriculture, water supply, resource conservation districts, city, county, state and federal agencies, water quality and watershed coalitions, and clean water and wastewater associations. Contrary to handing over development of the regulatory objectives to industry groups, Central Valley Water Board staff attended all of the LSJR Committee meetings and were actively involved in developing the objectives, building consensus between a wide variety of stakeholder groups, and ensuring that the final Proposed Amendment was subject to independent, external scientific peer review and met all legal requirements.

CALSPA APRIL COMMENT LETTER Comment No. 13: The Staff Report should address increases in contaminant toxic effects on aquatic organisms with increasing TDS, including alteration of organophosphate in the presence of salinity, increased atrazine toxicity with increasing concentrations of salinity, and altered toxicity of endocrine in the presence of salinity.

RESPONSE: Scientific literature related to contaminant toxic effects on aquatic organisms with increasing TDS is limited and variable. As noted in the references provided by the commenter, in some instances toxicity of chlorpyrifos was antagonistic with increasing salinity while toxicity of atrazine increased synergistically (Dassanayake et al. 2003). With the magnitude of specific and combination effects unknown at this time, staff is unable to adjust salinity objectives with current information. Overall toxicity of discharges, which would include combined effects from pesticides and other constituents, are regulated under other Board programs such as the Irrigated Lands Regulatory Program and National Pollutant Discharge Elimination System permits for wastewater treatment facilities and stormwater.

CALSPA APRIL COMMENT LETTER Comment No. 14: The commenter expresses concern regarding the use of the Hoffman Model – the LSJR Committee and the Regional Board staff ignore the new information and actual field data provided by South Delta Water Agency and are proceeding down the same path of unsupported assumptions and non-conservative decision-making.

RESPONSE: The LSJR Committee reviewed a number of different soil salinity model options, including steady-state and transient models, when developing the proposed salinity objectives. The Hoffman steady-state soil salinity model, which is considered a conservative model, has been peer reviewed and was applied in the Delta in 2010. None of the other models reviewed at that time had been tested in environments similar to the Central Valley of California and LSJR Basin (semi-arid to arid climate). The Committee selected the Hoffman model as the model that provided the most certainty of deriving a scientifically-defensible and conservative salinity objective for the LSJR since it had already received independent scientific peer review.

In addition, Central Valley Water Board staff submitted their conclusion that the Hoffman model was the appropriate tool to calculate ranges of protective salinity criteria for irrigated agriculture in the LSJR Basin to independent scientific peer review. All three scientific peer reviewers found the science and concepts surrounding use of the Hoffman model to calculate protective salinity criteria for irrigated agriculture to be sound. Two of the reviewers did note that newer models are being developed and should be evaluated as part of future overall program evaluation. In particular, they noted that one of the main inputs to the Hoffman model is leaching fraction, which may

be quite variable throughout the basin and may not adequately represent conditions where drip irrigation is utilized. It should be noted that the Hoffman model does not compute leaching fraction, rather it uses leaching fraction, irrigation water salinity, and other parameters as inputs to output estimates of soil salinity.

The peer reviewers also noted the limited information on specific crop sensitivity to salinity. Most information on crop salinity tolerance is based on varieties that do not represent current cropping patterns. One reviewer noted new information being developed for almond root stock.

These Proposed Amendment contains a Basin Plan re-opener ten years after adoption. Staff will use this re-opener provision to consider available models and any new crop sensitivity data when reviewing the program in the future.

CALSPA APRIL COMMENT LETTER Comment No. 15: Commenter contends that it is unreasonable to rely upon recommendations for leaching fraction input from organizations and individuals that have a vested interest in ensuring that the results of any assessment of potential salinity impacts will not lead to more restrictive EC limits.

RESPONSE: The Central Valley Water Board recognized that leaching fraction can vary greatly depending on irrigation practices, source water and soil conditions. In the absence of adequate site-specific data, the selection of the 15% leaching fraction as a reasonable input into the soil salinity model was made by irrigators, water purveyors, members of local Resource Conservation Districts and other LSJR Committee stakeholders with knowledge and experience of farming practices in the basin.

Central Valley Water Board staff reviewed the data to calculate leaching fractions as part of the response to comments on the 2010 Draft Salt Tolerance of Crops the Lower San Joaquin River Report, and calculated average leaching fractions near 25% in Western Stanislaus County, with a range of values from 13 to 84%. Given the uncertainty of the source water present in the subsurface drainage that was analyzed in these studies, the 15% value, which was near the lower end of the values estimated, was vetted by the LSJR Committee members (which includes representatives of water supply, resource conservation districts, city, county, state and federal agencies, water quality and watershed coalitions, and clean water and wastewater associations) and the CV-SALTS Executive Committee. Irrigators and farm managers using the LSJR as supply agreed that this value represented a reasonable leaching fraction for the LSJR Irrigation area.

It is also worth noting that the consensus recommendations for the Hoffman Model parameters, such as the leaching fraction, were developed in coordination with the very group that the AGR use was developed to protect – growers who utilize the LSJR to irrigate. The Central Valley Water Board disagrees that the selection of the leaching fraction was unduly influenced by those with a vested interest in a particular outcome.

CALSPA APRIL COMMENT LETTER Comment Nos. 16 & 17: Commenter expresses concern at the use of all but the 5th percentile dry years instead of the driest year. Commenter expresses concern that the proposed water quality objective would potentially eliminate cultivation of the most sensitive crop (dry beans) due to the LSJR Committee arbitrarily establishing a requirement that only crops comprising more than 5% of the acreage in the irrigation use area would be selected as “the most sensitive crop.”

RESPONSE: Using a 95 percentile driest year is a conservative input that includes data from all but 5% of the driest years. This 95 percent value, often used in similar modeling applications, was approved by the CV-SALTS Executive Committee as a reasonable and statistically sound approach. As to the selection of the “most sensitive crop” based on planting acreage within the use area, that is ultimately a policy decision as to what constitutes a reasonable level of protection of the AGR beneficial use. The Central Valley Water Board found that the thresholds set by the Proposed Amendment were appropriate.

The group most impacted by decisions affecting reasonable protection of AGR, the growers, were engaged in the recommendation which was endorsed by the broader-based and stakeholder-lead CV-SALTS Executive Committee. The Executive Committee is comprised of voting members from State, Federal and local agencies, environmental groups, the discharger community, and Environmental Justice and Disadvantaged Communities.

CALSPA APRIL COMMENT LETTER Comment No. 18: Commenter expresses concern that the Committee only used the exponential plant water uptake pattern instead of the 40-30-20-10 crop water uptake distribution.

RESPONSE: The exponential plant uptake pattern used in the Hoffman model is a conservative parameter that more accurately reflects conditions in the watershed as compared to the 40-30-20-10 option that had been developed to protect subsistence farming in developing countries. Independent scientific peer review confirmed that the science and concepts surrounding the use of the Hoffman Model in this situation (including use exponential plant water uptake patterns) were sound.

CALSPA APRIL COMMENT LETTER Comment No. 19: Commenter expresses concern that the Proposed Amendment would allow less than 100 percent yield.

RESPONSE: A 95% crop yield was considered a reasonable yield value by local agricultural producers participating in the LSJR Committee, especially since many other factors besides supply water can constrain yield. For example, bad weather, pests, a high water table and less-than-optimal soil conditions can greatly influence crop yield even when low salinity irrigation water is applied.

CALSPA APRIL COMMENT LETTER Comment No. 20: Commenter expresses concern that setting the EC objectives based on current crops will prevent farmers from growing more sensitive crops without risking permanent damage to their land.

RESPONSE: The efforts of the LSJR Committee and staff focused on how salinity can change and affect the AGR beneficial use in the LSJR Basin by using available published data on crop sensitivity to salt under various irrigation water salinity concentrations and leaching fractions. The information gathered was vetted through the agricultural growers utilizing LSJR as irrigation supply, as well as stakeholders familiar with crop production in the Central Valley. The participants recognized that variability exists throughout the Basin, but agreed to representative parameters, such as a 15% leaching fraction, for use in the study.

CALSPA APRIL COMMENT LETTER Comment No. 21: “The Staff Report fails to conduct an antidegradation analysis sufficient to provide the public a meaningful opportunity to understand

and comment on the potential impacts of the proposed project. This analysis is especially important in light of the recent decision of the Third Appellate Court in *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255 (AGUA). In this decision, the Court found that the state antidegradation policy ‘measures the baseline water quality as that existing in 1968 and defines high quality waters as the best quality achieved since that date,’ encompassing most waters of the state as high quality water to be protected. It further finds that any actions to lower water quality below that level will trigger the antidegradation policy, which requires that such high quality ‘will be maintained until it has been demonstrated’ that ‘any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.’”

RESPONSE: The Central Valley Water Board found that the Proposed Amendment is consistent with both the Federal Antidegradation Policy and State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*). The Staff Report contains such a demonstration in Section 10.1. Furthermore, the potential environmental impacts of the proposed project have been described as part of the Staff Report’s environmental analysis (consistent with the requirements of CEQA), and the public has been afforded a full opportunity to comment on those potential impacts.

With respect to the “baseline” concern expressed by this comment, as well as the comment regarding the applicability of the AGUA decision, Central Valley Water Board staff agreed that the determination of whether a receiving water is considered a high-quality water is based on whether “the best quality of the receiving water that has existed since 1968” is of better quality than the minimal level needed to sustain beneficial uses.

If an action of the Board will authorize an activity that will result in the degradation of a high-quality water, the *State Antidegradation Policy* applies, and the Board will need to regulate such activities to ensure the protection of beneficial uses, to require that dischargers proposing such activities will employ the best practicable treatment or control of the wastes in their discharges to limit degradation, and to make findings that any degradation caused by the discharges will inhere to the maximum benefit of the people of the state. The Proposed Amendment presumes that there are high-quality waters within the LSJR, and, following adoption of the Proposed Amendment, the Central Valley Water Board will still be required to regulate all discharges to the LSJR consistent with the *State Antidegradation Policy*.

CALSPA APRIL COMMENT LETTER Comment No. 22: The proposed Basin Plan Amendments propose to establish “less restrictive site-specific water quality objectives” for electrical conductivity for the LSJR, which the commenter contends will result in degraded water quality. Both the state and federal anti-degradation policies apply. Implementation of the state’s antidegradation policy is guided by the State Antidegradation Guidance, SWRCB Administrative Procedures Update 90-004, 2 July 1990 (“APU 90-004”) and USEPA Region IX, “Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12” (3 June 1987) (“Region IX Guidance”), as well as Water Quality Order No. 86-17.

RESPONSE: The Central Valley Water Board found that the Staff Report demonstrated that the Proposed Amendment is consistent with both the Federal Antidegradation Policy and the *State Antidegradation Policy*. However, by its own terms, APU 90-004 states, “[t]his Administrative Procedures Update provides guidance for the Regional Boards for

implementing [the State Antidegradation Policy] and the Federal Antidegradation Policy, as set forth in 40 CFR 131.12, as applied to the NPDES permitting process.” The commenter is therefore incorrect that the APU is directly applicable to the Proposed Amendment.

The Staff Report documents that the adoption of the Proposed Amendment is expected to result in improvements in water quality within Reach 83. However, because the Proposed Amendment will arguably set “less restrictive site-specific water quality objectives,” the Staff Report contains a discussion of how the Proposed Amendment is consistent with both the Federal Antidegradation Policy and the *State Antidegradation Policy*. As far as the Federal Antidegradation Policy is concerned, though the Proposed Amendment is expected to result in water quality improvements, the Staff report nonetheless contains all the elements suggested by the Region IX Guidance for any regulatory action that may lower water quality where existing water quality is more than sufficient to support designated beneficial uses: an economic impact analysis, a description of how the modified standards will ensure the protection of beneficial uses, and a determination that the proposed are necessary to accommodate important regional industries and/or social development in the area. Lastly, the Proposed Amendment is the product of intergovernmental coordination and public participation.

With respect to the *State Antidegradation Policy*, CALSPA is incorrect in asserting that the Proposed Amendment itself would authorize an “... activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters...,” thus requiring that the Board demonstrate that all dischargers potentially affected by the proposed Basin Plan Amendment will be employing best practicable treatment or control of their discharges necessary to ensure that pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the State will be maintained. The Central Valley Water Board need not make such a demonstration at the time the Basin Plan Amendment is adopted, because the Basin Plan is not self-implementing (in other words, the Proposed Amendment does not itself authorize “any activity” that may degrade high-quality waters).

Instead, the mechanism by which the Central Valley Water Board may authorize such activities that could degrade water quality is through the issuance of waste discharge requirements (including NPDES Permits, like the permit that was at issue in Water Quality Order No. 86-17, referenced by the commenter), conditional waivers, or water quality certifications that authorize waste discharges to the LSJR. That “activities” that result in degradation may only be authorized through the issuance of permits, and not by the modification of a non-self-implementing Basin Plan Amendment, is recognized in the *State Antidegradation Policy* itself, which states that activities that threaten to degrade high-quality waters must “... be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.”

Consistent with the *State Antidegradation Policy*, the Central Valley Water Board’s evaluation of whether the pollution control technologies employed by a discharger will result in “best practicable treatment or control of the discharge” will be conducted at the time that the Board sets permit limitations in waste discharge requirements. It is only at that point can the Board reasonably ascertain whether the pollution control technologies

proposed to be employed by the discharger(s) will result in best practicable treatment or control of the discharge; since “best practicable treatment or control” is intended to be a dynamic standard; it is inappropriate for the Board to make conclusions as to the future cost-effectiveness and relative efficacy of treatment or control technologies at the time the Basin Plan Amendment is adopted, rather than at the time waste discharge requirements are issued.

The Proposed Amendment is consistent with the *State Antidegradation Policy* and will not interfere with the Central Valley Water Board’s ability to make determinations as to whether or not a discharger’s treatment or control should be considered “best practicable treatment or control” when the Board issues waste discharge requirements in the future.

CALSPA APRIL COMMENT LETTER Comment No. 23: The impacts of the Extended Dry Period water quality objectives are not adequately evaluated in the Antidegradation Analysis.

RESPONSE: As described above, the Central Valley Water Board found that the Proposed Amendment is consistent with the State Antidegradation Policy. This also holds true for extended dry periods. Based on modeled results, salinity concentrations will decrease (improve) in the future. The Extended Dry Period provisions recognize that it is in the best interest of the people of the state to allow some flexibility to provide for water quantity in order to allow some level of agriculture (even at a reduced yield) to continue in the LSJR Basin to maintain the economy as well as allow export of excess salt to prevent long-term salinization.

CALSPA APRIL COMMENT LETTER Comment No. 24: The Antidegradation Analysis and the Staff Report do not discuss the levels of salinity that are necessary to protect the aquatic life beneficial uses of the receiving stream.

RESPONSE: Additional information has been provided in Sections 2.4 (Historic Salinity Concentrations and Limiting Factors), 4 (Beneficial Uses), 9 (Environmental Analyses), and 10.4 (Consistency with Central Valley Water Board Policies) to clarify that the Proposed Amendment is protective of all beneficial uses consistent with the Federal Antidegradation Policy and the *State Antidegradation Policy*.

2. CONTRA COSTA WATER DISTRICT (CCWD)

Comment letter was received by the State Water Board on October 30, 2017. The commenter listed reasons that the Contra Costa Water District does not support the EC objectives for the LSJR in four numbered sections.

CCWD Comment No. 1: In the first section, the commenter stated that “... the proposed EC objectives in the LSJR are not protective of downstream beneficial uses and water quality in the Delta. Although the Central Valley Regional Board staff stated in their response to comments that ‘the establishment of these water quality objectives will not impact the south Delta because the Vernalis objectives will continue to be met’, there was no scientific analysis supporting this statement. ... The Board staff did not explain how the salinity along the LSJR would be reduced to meet the Delta and Vernalis EC objectives.”

RESPONSE: This comment was previously made by others during the public comment period from February 1, 2017, through April 14, 2017. As outlined in the Central Valley Water Board’s response to comments, the proposed amendment is the second phase of

a process that the Central Valley Water Board has undertaken to establish the Control Program for Salt and Boron Discharges into the LSJR in the Basin Plan. The Staff Report presents thorough scientific analyses that predict future conditions in the LSJR. Modeling efforts presented in Chapter 5 of the Staff Report, Sections 5.3.1.4 and 5.3.1.5, show that future salinity levels are predicted to be lower than historic conditions, and that compliance with the proposed water quality objectives at Crows Landing will result in incrementally lower salinity concentrations downstream to Vernalis.

CCWD Comment No. 2: In the second section of the letter, the commenter stated the following: “Unless desalination plants are built, dilution is the only feasible way to reduce salinity from 1,550 $\mu\text{S}/\text{cm}$ upstream of Vernalis to 1,000 $\mu\text{S}/\text{cm}$ at Vernalis.”

RESPONSE: This comment was not previously made during the Central Valley Water Board’s public comment period from February 1, 2017, through April 14, 2017.

The commenter is correct that it is dilution that results in the decrease in salinity from the Crows Landing compliance point to Vernalis, and this dilution does not come solely from New Melones. However, the effect of the Proposed Amendment, as documented in modeling efforts presented in the Staff Report in Section 5.3.1.5, is expected to be reduced salinity discharges to the LSJR and a commensurate decrease in releases from New Melones that are required to meet Vernalis salinity objectives.

CCWD Comment No. 3: “Historically, there has already been a need for water releases from New Melones Reservoir to meet the Vernalis EC objective. Although it should be the dischargers’ responsibility to ensure that downstream beneficial uses are protected from discharge activities, it has been at the expense of the Bureau of Reclamation (USBR) and Central Valley Project contractors to ensure that the Vernalis EC objective is met through releases from New Melones. By establishing the EC objectives upstream of Vernalis to be more than 50% higher than those at Vernalis, the proposed Amendment would only exacerbate the unreasonable shift of responsibilities from dischargers to Reclamation.”

RESPONSE: Similar comments pertaining to New Melones dilution flows were previously made during the Central Valley Water Board’s public comment period from February 1, 2017, through April 14, 2017. The commenter has not indicated why the Central Valley Water Board’s previous response was inadequate.

The Proposed Amendment represents the culmination of years of efforts by the Central Valley Water Board to hold dischargers responsible for reducing salinity inputs to the LSJR. The USBR has been actively participating in efforts to control salinity concentrations in the Delta, particularly through the real-time management program that was incorporated into Phase I of the control program. The USBR has taken on these responsibilities in part because conditions placed on New Melones water rights require protection of downstream beneficial users. Under the existing control program, Central Valley Project Water Contractors are also participating in ongoing efforts to control salinity.

The Proposed Amendments, by setting water quality objectives, a performance goal and an implementation program designed to ensure that salinity-reducing management projects undertaken by agricultural dischargers continue to be implemented, does exactly what the commenter suggests the Board do – require agricultural dischargers to share the burden of reducing salinity loads to the Delta.

CCWD Comment No. 4: In the third section, the commenter states that “... the reduction in salt loads to the SJR due to the GBP was not designed to offset water quality degradation from other uncontrolled discharges. The anticipated success of GBP in reducing salt loads into the San Joaquin River and Delta should not be a reason to establish EC objectives that would allow an increase in salt loads from other discharges.”

RESPONSE: This comment was not previously made during the Central Valley Water Board's public comment period. However, the commenter is incorrect in stating that the EC objectives were established to allow an increase in salt loads; the proposed EC water quality objectives are set to levels that will ensure the protection of beneficial uses. Further, the implementation provisions of the Proposed Amendment, in conjunction with the performance goal established by the Proposed Amendment, are established to bolster the Board's regulatory authority to continue to make progress in reducing salinity discharges to the LSJR. The water quality objectives were not established to justify increased salt loads from other discharges.

CCWD Comment No. 5: In the fourth section of the comment letter, the commenter stated the following: “The Staff Report concluded that a better water quality objective, such as Project Alternative #6 to establish 1,010 $\mu\text{S}/\text{cm}$ as the EC objective at LSJR (which is more consistent with the Vernalis EC standards), is not feasible to implement and may constraint water conservation efforts. This conclusion implicitly assumed that current discharge activities could not be improved, which is unreasonable.”

RESPONSE: This comment was not previously made during the Central Valley Water Board's public comment period, nor did the commenter explain why the comment was not raised before the Central Valley Water Board

The modeling scenarios presented in the Staff Report showed that meeting a WQO of 1,010 $\mu\text{S}/\text{cm}$ EC consistently across different water year types in the LSJR at Crows Landing was only obtainable with a large-scale desalination plant. Water Code section 13241 requires that the Regional Board evaluate economic considerations when establishing water quality objectives. The Staff Report demonstrates that construction of a desalination plant with the capacity necessary to reduce LSJR water EC to 1,010 $\mu\text{S}/\text{cm}$ during all water year types is not economically feasible. Also, the need to develop and use recycled water is another Water Code section 13241 factor that the Central Valley Water Board considered in establishing the water quality objectives. Water conservation efforts are also considered as part of the need to develop and use recycled water, and establishing an EC objective of 1,010 $\mu\text{S}/\text{cm}$ would limit discharge of water at salinity concentrations that could be reused downstream. The preferred alternative presented in the Staff Report does not implicitly assume that current discharges cannot be improved; it includes a number of other future salinity management actions in addition to the implementation of the GBP.

CCWD Comment No. 6: In the closing paragraph of the letter, the commenter concludes the following: “Overall, the water quality objectives should be established to protect source water, not to create more assimilative capacity for discharges.”

RESPONSE: This comment was not previously made during the Central Valley Water Board's public comment period, nor did the commenter explain why the comment was not raised before the Central Valley Water Board.

Water Code section 13241 requires the Regional Board to establish water quality objectives in its Basin Plan that, in its judgment, will ensure the reasonable protection of beneficial uses and the prevention of nuisance. The section lists factors that must be considered in the establishment of water quality objectives. One of these factors is the past, present, and probable future beneficial uses of water. Another is consideration to the water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area. As explained in the Staff Report, these and other factors were considered in developing the proposed water quality objectives, which is consistent with both state and federal law. While the potential available assimilative capacity was evaluated when reviewing water quality objectives, only water quality objectives that were protective of beneficial uses were part of the alternatives considered.

3. MERCED IRRIGATION DISTRICT (MID)

Comment letter, submitted by Duane Morris on behalf of the Merced Irrigation District, was received by the State Water Board on October 30, 2017.

MID Comment No. 1: "As part of its previous comments to the proposed amendment, MID noted that while the Staff Report (p. 1) states that the natural flows from the upper San Joaquin River to the lower San Joaquin River have been severely diminished due to diversions at Friant Dam via the Friant-Kern Canal to irrigate crops outside of the San Joaquin River Basin, it makes little to no mention of the now-instituted Restoration Flows from Friant under the San Joaquin River Restoration Program ("SJRRP"). (See e.g., Staff Report, p. 20 or Appendix F, p. 204.) As such, MID commented that it was unclear from reviewing the Staff Report how the increased assimilative capacity of such Restoration Flows were considered in the modeling analysis presented assessing the feasibility of achieving the proposed water quality objectives or in the assessment of cumulative environmental impacts in Chapter 9. In its response to this comment, the CV-RWQCB stated that it had not incorporated SJRRP Restoration Flows into its modeling analysis because current planning call for Restoration Flows to be diverted upstream of the Merced River and because inclusion of Restoration Flows into the analysis would add an additional level of certainty. Instead, the CV-RWQCB indicated that the re-opener in ten years offered an opportunity to assess the impacts of activities of the SJRRP on water quality in the river.

MID respectfully disagrees that the analysis should not have included the impact of Restoration Flows in the Lower San Joaquin River. Restoration Flows are released to the San Joaquin River each year and affect conditions in the San Joaquin River. Further, the 2015 Revised Framework for Implementation of the SJRRP envisions the completion of many channel improvements within the next five to ten years that would facilitate the release of Restoration Flows downstream of the confluence of the Merced River. Because Restoration Flows are likely to be present below the confluence of the Merced River within the next five to ten years, the current analysis and assessment of environmental impacts should have incorporated the effects of SJRRP Restoration Flows instead of postponing such an analysis for ten years."

RESPONSE: Staff appreciates the commenter's concerns regarding the future impact that flows from the SJRRP may have on the LSJR water quality. Of the flows that the SJRRP has released since late 2009, none reached the mouth of the Merced River until October 17, 2016. The research and preparations for the Staff Report occurred primarily between mid-2010 and the end of 2016. During most of that period, useful modeling inputs for future SJRRP flows were not available. Therefore, we find that it was

appropriate for the Central Valley Water Board to defer evaluation of possible impacts of SJRRP flows until the re-opener in 10 years following adoption of the amendment when as the commenter noted, restoration flows are likely to be present below the confluence of the Merced River.

4. MR. JOSEPH RIZZI

Comment letter was received by the State Water Board on October 26, 2017.

Mr. Joseph Rizzi Comment No. 1: Mr. Rizzi indicates that Appendix E of the Staff Report is biased and that the State Water Board should consider WaterFix's solar desalination, which is a proven technology, cheaper and can run 100% on solar.

RESPONSE: Though this comment, and the information cited therein, was not provided during the Central Valley Water Board's public comment period, the Proposed Amendment includes a re-opener in 10 years at which time new salinity management technologies, such as the one which is proposed above, could be evaluated and potentially integrated into the implementation provisions of the Basin Plan.

5. STOCKTON EAST WATER DISTRICT (SEWD)

Comment letter, submitted by Herum Crabtree Suntag Attorneys on behalf of Stockton East Water District, was received by the State Water Board on October 30, 2017.

SEWD Comment No. 1: The letter, written by Karna Harrigfeld on behalf of Stockton East Water District, supports approval of the Amendment and noted her participation as co-chair of the LSJR Committee, the hundreds of hours invested by a diverse group of stakeholders and the extra effort employed to insure that any proposed objective would be protective of agriculture in the Region.

RESPONSE: Support noted.

SEWD Comment No. 2: The letter's second comment relates to the project's goal to ensure that implementation of the selected salinity water quality objective would reduce New Melones water quality releases and noted that, "... based on the modeling done as part of this process that the proposed salinity water quality objective and the implementation plan will achieve this desired outcome."

RESPONSE: Comment noted.

SEWD Comment No. 3: The Letter's third comment follows: "Stockton East supports the State Water Board's approval of the Basin Plan Amendment and we appreciate the opportunity to comment."

RESPONSE: Support noted.

6. UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION (USBR)

Comment letter was received by the State Water Board on October 27, 2017.

USBR Comment No. 1: USBR notes participation on several LSJR committees (Real Time Management Program, CV-SALTS, Grassland Bypass Project)

RESPONSE: The Central Valley Water Board recognizes that USBR has been active and responsive participant in a variety of ongoing regulatory and planning efforts. Furthermore, in addition to those mentioned in the comment letter, USBR has also been an active member of the LSJR Committee. Of the 66 meetings of this LSJR Committee, held between May 2010 and the end of December 2016, there was only one meeting during which USBR staff were not represented.

USBR Comment No. 2: The Basin Plan Amendment sets the same water objectives for a single stretch of the LSJR between Vernalis and the Merced River. However, the amendment does not acknowledge that there are two distinct sections to the LSJR with distinctly different levels of salinity (the two stretches are indicated as the stretch between Merced and Tuolumne Rivers and the stretch between the Tuolumne and Stanislaus Rivers).

RESPONSE: Though this comment was not raised previously, the Central Valley Water Board agrees that water quality conditions can differ between these two sections of the LSJR based on dilution flows from the Tuolumne and Stanislaus Rivers.

The decision to set water quality objectives for the entire reach of the LSJR was made as the Basin Planning effort took shape following initial scoping and outreach sessions. Central Valley Water Board staff will continue to monitor the success of both Phase I and Phase II of the Control Program, and if regulatory efforts would benefit from treating the two sections of the LSJR differently, the Board could modify the Control Program when it reassesses the success of the water quality objectives, performance goal, and implementation program.

USBR Comment No. 3: USBR comments that the Basin Plan Amendment salinity objectives will allow degradation of the LSJR water quality between the Tuolumne and Stanislaus Rivers as measured at the Maze Road monitoring station.

RESPONSE: Though the Board understands USBR's concern, the Central Valley Water Board does not expect that the establishment of the water quality objectives will result in degradation in water quality at the Maze Road monitoring station. As detailed in the Staff Report, historic data indicate that EC concentrations at the Crows Landing monitoring station are consistently higher than those measured at Maze Road. This is explained by the fact that the largest sources of salt loads to the LSJR are upstream of Crows Landing, and by the dilution flow provided by the Tuolumne River, which enters the LSJR between Crows Landing and Maze Road. The water quality objectives established by the Proposed Amendment will apply throughout the LSJR, including at Crow's Landing. Therefore, unless there are large changes in the hydraulics of the San Joaquin River Basin (which is highly unlikely), when the water quality objectives are met at Crows Landing, Maze Road will see concentrations that are significantly lower.

USBR Comment No. 4: USBR comments that approval of the Basin Plan amendment will require it to release additional water from New Melones Reservoir, which will not be available at all times.

RESPONSE: Modeling efforts described in the Staff Report support the conclusion that currently-proposed management practices will have the effect of lowering salinity

concentrations in the LSJR, thus reducing reliance on flows from New Melones to meet salinity objectives established at Vernalis by the Bay-Delta Plan. The Proposed Amendment is intended to continue to put pressure on the dischargers who are implementing the salinity-reducing management practices in order to fully achieve the anticipated salinity reductions from these projects.

However, it should be noted that salinity concentrations alone are not a sufficient indicator of whether additional releases will be required from New Melones. As documented during the extended drought, salinity *concentrations* at Maze Road increased, but the flow volume and salt *load* was significantly decreased, so additional releases from New Melones to meet salinity objectives at Vernalis were not needed.

In addition, the Proposed Amendment does not supersede the requirements of Phase 1 of the Salt and Boron Control Program, which requires dischargers to meet the salinity requirements at Vernalis by complying with strict effluent limits or participating in a Board approved real-time management program. These requirements are implemented through NPDES permits and waste discharge requirements (WDRs). The Western San Joaquin Watershed Coalition's current WDR (R5-2014-0002-R2) states, in Chapter VIII, Section K, page 38:

K. Total Maximum Daily Load (TMDL) Requirements

Approved TMDLs in the Basin Plan that apply to water bodies within the third-party's geographic area and have allocations for irrigated agriculture shall be implemented in accordance with the applicable Basin Plan provisions. . Where required, the third-party shall coordinate with Central Valley Water Board staff to develop a monitoring design and strategy for TMDL implementation. . Where applicable, SQMPs shall address TMDL requirements.

TMDL requirements include, but are not limited to, Basin Plan provisions for the Control Program for Salt and Boron Discharges into the Lower San Joaquin River. . To ensure its Members can meet the requirements of the Control Program for Salt and Boron Discharges into the Lower San Joaquin River, the third-party must, by 30 June 2014, 1) participate in a Central Valley Water Board approved real-time management program ³⁰; or 2) submit a surface water quality management plan that includes the required elements identified in the Monitoring and Reporting Program, Appendix MRP-1 and is designed to meet the Base Salt Load Allocations identified in Table IV-4.4 Summary of Allocations and Credits ³¹ within the applicable compliance schedule for compliance in Table IV- 4.3 ³².

^{30, 31, and 32} *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, at page IV-32.01*

The Eastern San Joaquin River Watershed Coalition's General Order (R5-2012-0116) and the San Luis & Delta-Mendota Water Authority/USBR's General Order (R5-2015-0094) for the Grassland Bypass Project also include similar provisions.

USBR Comment No. 5: USBR comments that the objectives are not appropriate for existing water quality given that they are "much higher than the Regional Board believes will actually occur."

RESPONSE: While the Central Valley Water Board set water quality objectives to protect beneficial uses (as defined by the Proposed Amendment), the Board also included a more aggressive water quality performance goal based off of modeled results of expected water quality of the LSJR at Crows Landing and Maze Road. This performance goal is the result of running the model with a variety of inputs, ranging from zero discharge and desalinization to currently-scheduled management practices that would reduce salinity loading to the LSJR (e.g. zero discharge from the Grassland Bypass Project by 2019). The model also helped support the conclusion that the water quality objectives were reasonably achievable and protective of beneficial uses.

The Proposed Amendment does not set the water quality objectives at the levels predicted by the model after the currently-scheduled management practices that would reduce salinity loading to the LSJR are implemented because the Central Valley Water Board recognizes that there is some degree of uncertainty in the predictive accuracy of any model, including the WARMF model utilized in this planning effort. However, if the planned salinity management actions do not result in the attainment of the performance goal as modeled, Central Valley Water Board staff will evaluate why the performance goal was not achieved as well as the model inputs that were used to derive the performance goal.

USBR Comment No. 6: USBR presents two figures that chart historic 30-day running average electrical conductivity concentrations at the Maze Road monitoring station between January 2010 and September 2017 (Figures 3 and 4 of the Technical Report attached to the comment letter). Based on the figures, Reclamation makes the following comment: “Figures 3 and 4 show that the existing data is usually compatible with a WQO set at 1250 $\mu\text{S}/\text{cm}$, and at 1350 $\mu\text{S}/\text{cm}$ during extended dry periods”.

RESPONSE: This comment was not previously made during the Regional Board’s public comment period. However, an explanation as to why USBR’s figures suggest the establishment of different water quality objectives can be found in the fact that the data supporting the establishment of the water quality objectives in the Proposed Amendment is based on data collected during a wider variety of water year types than the data used to develop USBR’s two figures.

The analyses performed by the LSJR Committee in 2014, which documented historic water quality at Crows Landing and Maze Road, included data collected between the last major change in the hydraulics of the LSJR Basin (which occurred in 1995, when the Grassland Bypass Project was implemented) and the end of the 2013 Water Year. This timespan includes data from more than one of each of the five water year types: there were seven (7) Wet, three (3) Above Normal, two (2) Below Normal, four (4) Dry, and five (5) Critically Dry Water Year types in this period. USBR’s analysis of water quality data, collected from January 2010 through September 2017, does not include data collected from all water year types, as it only includes data from two (2) Wet, one (1) Above Normal, zero (0) Below Normal, two (2) Dry, and three (3) Critically Dry Water Year types.

Nevertheless, the Central Valley Water Board has committed to reconsidering the established water quality objectives, performance goal, and implementation plan in 10 years, based on additional water quality data collected during that time. Should that data indicate that lower water quality objectives or performance goals are feasibly met,

the Board could re-open the Proposed Amendment and revise the objectives, goal, and/or implementation plan.

USBR Comment No. 7: USBR comments that the objectives are not consistent with Federal and State Antidegradation Policies because conditions will be degraded between the Tuolumne and Stanislaus Rivers.

RESPONSE: Similar comments were previously made by others during the public comment period from February 1, 2017, through April 14, 2017. The commenter did provide a reason why the Central Valley Water Board's response was inadequate.

Nevertheless, as stated in USBR Comments No. 2 and No. 3, the first compliance point for the water quality objectives is at Crows Landing, and conditions improve incrementally downstream with the inflows from the Tuolumne and Stanislaus Rivers. Modeling demonstrates that water quality will improve at Crows Landing as compared to historic conditions, and therefore conditions are expected to improve, not degrade, downstream at Maze Road and Vernalis.

USBR Comment No. 8: USBR requests that the State Water Board not approve the proposed Basin Plan Amendment and direct the Regional Board to reevaluate the EC water quality objectives for the reach of the LSJR between the Tuolumne and the Stanislaus Rivers.

RESPONSE: Although USBR has been a very active member of the LSJR Committee, this was the first instance that the Central Valley Water Board heard about this concern. Since USBR's comment letter was filed, the Central Valley Water Board has worked collaboratively with USBR to draft language in the State Water Board's approval Resolution to address USBR's concerns. The new language augments the existing re-opener clause by directing the Central Valley Water Board to conduct a re-assessment of the accuracy of modeled results, should reduced salinity discharges to the LSJR not result in fewer dilution flows from New Melones to meet salinity objectives at Vernalis.

The Central Valley Water Board notes that a reduction in dilution flows from New Melones to meet salinity objectives at Vernalis was one of the criteria that went into the selection of the preferred alternative, and if future monitoring calls into doubt critical underlying assumptions that went into the development of the Proposed Amendment, the Board would share USBR's concern that such assumptions be promptly re-assessed.

7. SAN JOAQUIN TRIBUTARIES AUTHORITY (SJTA)

Comment letter, submitted by O'Laughlin & Paris LLP on behalf of the San Joaquin Tributaries Authority, was received by the State Water Board on October 30, 2017.

SJTA Comment No. 1: "The SJTA applauds the Regional Board's use of all the tools and authorities available to it as public servants to develop a regulatory program that maintains a healthy environment and good quality of life for all Californians that rely on the state's water resources. The SJTA urges the State Water Board to approve the Regional Board's Amendments to the Water Quality Control Plan for the Sacramento and San Joaquin River Basin."

RESPONSE: Comment acknowledged.